

### **AMENDMENTS TO THE CLAIMS**

The following listing of claims will replace all prior versions, and listings, of claims in the application.

1-36. **(Canceled)**

37. **(Currently amended)** A method of making a modified allergen which is less reactive with IgE comprising:

(a) identifying one or more IgE binding sites in ~~an~~ a natural allergen, the one or more IgE binding sites being ones that are recognized when the allergen is contacted with serum IgE from an individual that is allergic to the allergen;

(b) modifying the allergen by mutating at least one amino acid in one or more IgE binding sites;

(c) screening for IgE binding to the modified allergen using serum IgE from an individual that is allergic to the allergen; and

(d) selecting the modified allergens which have decreased binding to IgE as compared to the unmodified allergen.

38. **(Previously presented)** The method of claim 37 further comprising screening for activation of T cells that have been cultured from an individual that is allergic to the allergen and selecting the modified allergens which activate the T cells in substantially the same way as the unmodified allergen.

39. **(Previously presented)** The method of claim 37 further comprising screening for binding of the modified allergen to IgG using serum IgG from an individual that is allergic to the allergen and selecting the modified allergens which bind IgG in substantially the same way as the unmodified allergen.

40. **(Previously presented)** The method of claim 37 wherein the modified allergen is mutated in the center of one or more of the IgE binding sites.

41. **(Previously presented)** The method of claim 37 wherein the modified allergen is mutated by substitution.
42. **(Previously presented)** The method of claim 41 wherein the modified allergen is mutated by substituting a hydrophobic amino acid in the center of one or more of the IgE binding sites with a neutral or hydrophilic amino acid.
43. **(Currently amended)** The method of claim 37 wherein the modified allergen is a portion of the allergen, which portion includes all of the one or more IgE binding sites of the natural allergen.
44. **(Previously presented)** The method of claim 37 wherein the modified allergen is formulated with an adjuvant selected from the group consisting of IL-12, IL-16, IL-18, IFN $\gamma$  and immune stimulatory oligodeoxynucleotide sequences containing unmethylated CpG motifs which cause brisk activation and skew the immune response to a Th1-type response.
45. **(Previously presented)** The method of claim 37 wherein the modified allergen is screened for initiation of a T cell helper 1 response.
46. **(Previously presented)** The method of claim 37 wherein the modified allergen is made in a recombinant host selected from the group consisting of plants, animals, bacteria, yeast, fungi, and insect cells.
47. **(Previously presented)** The method of claim 37 wherein the modified allergen is made in cells using site specific mutation.
48. **(Previously presented)** The method of claim 37 wherein the modified allergen is made from a peanut allergen selected from the group consisting of Ara h 1, Ara h 2, and Ara h 3.
49. **(Previously presented)** The method of claim 37 wherein the modified allergen is based on a protein obtained from a source selected from the group consisting of legumes, milks, grains,

eggs, fish, crustaceans, mollusks, insects, molds, dust, grasses, trees, weeds, mammals, birds, and natural latexes.

50. **(Previously presented)** The method of claim 37, wherein the step of modifying includes mutating at least one amino acid in all the IgE epitopes of the allergen.

51. **(Previously presented)** The method of claim 37, wherein the at least one IgE epitope is one that is recognized when the allergen is contacted with a pool of sera IgE taken from a group of at least two individuals that are allergic to the allergen.

52. **(Currently amended)** A method of making a modified food allergen which is less reactive with IgE comprising:

(a) identifying one or more IgE binding sites in a natural food allergen, the one or more IgE binding sites being ones that are recognized when the food allergen is contacted with serum IgE from an individual that is allergic to the food allergen;

(b) modifying the food allergen by mutating at least one amino acid in one or more IgE binding sites;

(c) screening for IgE binding to the modified food allergen using serum IgE from an individual that is allergic to the food allergen; and

(d) selecting the modified food allergens which have decreased binding to IgE as compared to the unmodified food allergen.

53. **(Previously presented)** The method of claim 52 wherein the modified allergen is based on a protein obtained from a source selected from the group consisting of legumes, milks, grains, eggs, fish, crustaceans, and mollusks.

54. **(Previously presented)** The method of claim 53 wherein the modified allergen is based on a protein obtained from a source selected from the group consisting of wheat, barley, cow milk, egg, codfish, hazel nut, soybean, and shrimp.

55-56. **(Canceled)**

57. **(Previously presented)** The method of claim 37 or 52 wherein the step of modifying includes modifying at least 1-6 amino acids in at least one IgE epitope of the allergen.

58. **(Previously presented)** The method of claim 37 or 52 wherein the step of modifying includes modifying at least 1-5 amino acids in at least one IgE epitope of the allergen.

59. **(Previously presented)** The method of claim 37 or 52 wherein the step of modifying includes modifying at least 1-4 amino acids in at least one IgE epitope of the allergen.

60. **(Previously presented)** The method of claim 37 or 52 wherein the step of modifying includes modifying at least 1-3 amino acids in at least one IgE epitope of the allergen.

61. **(Previously presented)** The method of claim 37 or 52 wherein the step of modifying includes modifying at least 1-2 amino acids in at least one IgE epitope of the allergen.

62. **(Previously presented)** The method of claim 37 or 52 wherein the step of selecting includes selecting the modified allergens which bind to IgE at levels that are less than about 1% of those observed with the unmodified allergen.